Electronic Version
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Claims

[c1] 1. A method for a display controller to access data stored in a memory device of a computer device comprising:
setting a block capacity value;
dividing a plurality of read requests corresponding to a predetermined request sequence and said block capacity value into a plurality of request, wherein a total amount of data required by read requests grouped in each request group is less than the block capacity value; and
reordering the read requests in each of said request groups corresponding to data on the page of said memory device into a second request sequence for each of said request groups;
executing the read requests in each of request group according to said second request sequence of each of said request groups.

[c2] 2.The method of claim 1 further comprising: when the pages accessed by the read requests in the next request group is as same as the page accessed by the final read request in the last request group,
executing said read requests in the next request group

at first, and then executing other read requests in the next request group.

[c3] 3.The method of claim 1 wherein the memory controller stores the plurality of read requests in a queue.

[c4] 4.The method of claim 1 wherein the memory controller is installed in a north bridge circuit and the north bridge circuit is used for controlling transmission between a display controller and the memory device.

[c5] 5.The method of claim 1 wherein the data that are read with the memory controller are transmitted to a display controller.

[c6] 6.The method of claim 5 wherein the display controller is connected electrically to the memory controller through an accelerated graphics port bus in the computer device.

[c7] 7.The method of claim 5 wherein the display controller is a graphics card.

[c8] 8.The method of claim 5 wherein the display controller is installed in a north bridge circuit in the computer system.

[c9] 9.The method of claim 1 wherein the memory device is a system memory of the computer system.

[c10] 10.The method of claim 1 wherein the memory controller stores the data in the display controller according to the predetermined request sequence.

[c11] 11.A method for accessing data, a plurality of read requests used for accessing data from a memory device according to a predetermined request sequence, the method comprising:
reordering said read requests according to pages in said memory device accessed by said read requests in a second request sequence, wherein said read requests accessed the same page of said memory device are continuously arranged; and
executing the read requests according to said second request sequence.

[c12] 12.The method of claim 11 further comprising:
when the pages in the memory device of the read requests in the next request group include pages that are the same as the page corresponding to the final read request in the last request group,
executing the read requests in the next request group corresponding to the data in the page with the memory controller and then executing the read requests in the next command block corresponding to the data of the different page.

[c13] 13.The method of claim 11 wherein the memory controller stores the plurality of read requests in a queue.

[c14] 14.The method of claim 11 wherein the memory controller is installed in a north bridge circuit and the north bridge circuit is used for controlling the transmission between a display controller and the memory device.

[c15] 15.The method of claim 11 wherein the data that are read with the memory controller are transmitted to a display controller.

[c16] 16.The method of claim 15 wherein the display controller is connected electrically to the memory controller through an accelerated graphics port bus in the computer device.

[c17] 17.The method of claim 15 wherein the display controller is a graphics card.

[c18] 18.The method of claim 15 wherein the display controller is installed in a north bridge circuit in the computer device.

[c19] 19.The method of claim 11 wherein the memory device is a system memory of the computer device.

[c20] 20.The method of claim 11 wherein the memory controller stores the data in the display controller according

to the predetermined request sequence.